(19) World Intellectual Property Organization

International Bureau

(43) International Publication Date

6 January 2005 (06.01.2005)





PCT

(10) International Publication Number WO 2005/001063 A2

(51) International Patent Classification7:

C12N

(21) International Application Number:

PCT/US2004/020589

(22) International Filing Date: 25 June 2004 (25.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/482,653

25 June 2003 (25.06.2003)

(71) Applicant (for all designated States except US): SOMA-GENICS, INC. [US/US]; 2161 Delaware Avenue, Santa Cruz, CA 95060 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KAZAKOV, Sergei. A. [US/US]; Apartment 17, 909 University, Los Gatos, CA 95032 (US). DALLAS, Anne [US/US]; 41 Grandview Street, Apt. 701, Santa Cruz, CA 95060 (US). KUO, Tai-Chih; Floor 2, No. 36, 157th Lane, 1st section, Hsing-Shang S. Rd, Taipai 106 (**). JOHNSTON, Brian, H. [US/US]; 1219 Weston Road, Scotts Valley, CA 95066 (US).

(74) Agents: JACOBSON, Jill, A. et al.; Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, CA 94304 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD. MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLYNUCLEOTIDES CAPABLE OF TARGET-DEPENDENT CIRCULARIZATION AND TOPOLOGICAL LINK-

(57) Abstract: The invention provides allosterically regulatable polynucleotides capable of target-dependent circularization and topological linkage to a target nucleic acid molecule. Polynucleotides of the invention include a target binding sequence and a regulatory element which prevents circularization in the absence of the target binding. Polynucleotides may include a catalytic domain, allowing circularization to proceed via catalysis when the target binding sequence of the polynucleotide is bound to the target. Topologically linked polynucleotides may be used for detection of target molecules or to inhibit transcription or translation of the target.

